

WHAT IS CLAIMED IS:

1. A stacked photovoltaic element comprising a structure formed by sequentially arranging a metal layer, a lower transparent conductive layer, a first 5 n-layer of non-single-crystal silicon, a first i-layer of microcrystal silicon, a first p-layer of non-single-crystal silicon, a second n-layer of non-single-crystal silicon, a second i-layer of microcrystal silicon and a second p-layer of non-10 single-crystal silicon on a support body, said first i-layer and said second i-layer containing phosphor and the content ratio R1 of phosphor to silicon of the first i-layer and the content ratio R2 of phosphor to silicon of the second i-layer are defined 15 by the formula of

$$R2 < R1.$$

2. An element according to claim 1, wherein said structure is formed by additionally and 20 sequentially laying a third n-layer of non-single-crystal silicon, a third i-layer of amorphous silicon and third p-layer of non-single-crystal silicon and an upper transparent conductive layer of ITO on and in contact with said second p-layer.

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3. An element according to claim 1, wherein the relationship of said content ratios R1 and

R2 is defined by the formula of

$$0.1\text{ppm} < R2 < R1 < 4\text{ppm}.$$

4. A current balance adjustment method for a
5 stacked photovoltaic element containing a structure
formed by sequentially arranging a first n-layer of
non-single-crystal silicon, a first i-layer of
microcrystal silicon, a first p-layer of non-single-
crystal silicon, a second n-layer of non-single-
10 crystal silicon, a second i-layer of microcrystal
silicon and a second p-layer of non-single-crystal
silicon, said method comprising causing said first i-
layer and said second i-layer to contain spectral
sensitivity adjusting atoms and adjusting the
15 current balance by adjusting the concentration of the
spectral sensitivity adjusting atoms.

5. A method according to claim 4, wherein
said spectral sensitivity adjusting atoms are
20 phosphor atoms.